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ABSTRACT

The results of a pilot study of a reading tutor program that had as its focus the creation of a suitable reporting system for insuring adequate implementation of the program are discussed in this paper. The use of learning resource teachers (LRTs) to train tutors, select tutees, monitor implementation, and establish home-based reinforcement is assessed. The problems with implementing a cross-age tutoring program without using outside resources are examined, including the necessity both for a suitable reporting system and for an expert in tutoring to review the records, monitor tutor performance, and take quick action to correct problems as they arise. The report concludes that cross-age tutoring should not be regarded as a time-saving program, but as a more cost-effective one. Appended are the forms developed for the program, including a tutor record sheet, an LRT weekly report form, a tutor efficiency checklist, a list of responsibilities of the ALRT (the LRTs' supervisor), a student progress chart, and an ALRT review report. (AEA)

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CROSS-AGE TUTORING - GOING IT ALONE

L. M. Isaacs & R. G. Stennett, Ph.D.

Educational Research Services
London Board of Education

Research Report 79-06

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HISTORICAL PERSPECTIVE

During the past few years Educational Research Services (ERS), the Learning Resource System (LRS) and several university professors and graduate students have worked together to develop an effective in-school cross-age tutoring program to aid students who are behind in reading. The results of the early studies (Stennett & Isaacs, 1976 & 1977) in this area were not very encouraging, the students being tutored tending to make gains that were no greater than their controls. During the course of these studies, however, it became obvious that there were many difficulties and subtleties involved in the adequate implementation of a cross-age tutoring program. Even though the Learning Resource Teachers (LRTs) had specific training in the procedures involved in the programs and in techniques to train their tutors, they encountered many problems along the way. A review of the records kept by the LRTs and the tutors revealed the following problems: (1) tutoring sessions were often cut short or missed so that the increase in total instructional time provided by tutoring was only about 5-10%, (2) students were sometimes started in material which was too easy for them and consequently merely rehearsed known skills for a portion of the tutoring time, and (3) some tutees were allowed to move on in the program before the previous material had been mastered.

In 1977, Mr. J. Trovato, a graduate student in psychology from U.W.O., in cooperation with the LRS, implemented a cross-age tutoring program designed to produce gains in reading skill and to test the impact of adding a home-based reinforcement component[1] to the tutoring program. Because this project constituted his M.A. thesis, Mr. Trovato trained the LRTs and monitored every phase of the program regularly by visiting the schools every 2-4 days and observing tutoring sessions, doing reliability checks of the adequacy of the tutoring, and retraining tutors when it was necessary. He also took responsibility for all of the negotiating and follow-up required for the home-based component.

Under these circumstances, the results were very encouraging. Over a 5 month period, the control group gained approximately 2 months, the group which was tutored without reinforcement gained approximately 8 months and the group which was tutored and received home-based reinforcement gained

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[1] In the home-based reinforcement component, the students being tutored receive points for accurate reading which can later be exchanged for reinforcers dispensed in the home, by the parents. This procedure required the creation of a contract with the parent specifying the reinforcers and the points needed to acquire them.

13 months (Trovato, 1978). The final message in Mr. Trovato's paper, directed at school systems states:

Adoption of a proposed program is facilitated if it can be shown that the program can be effectively implemented by existing social service agencies. The present program presents several defects in this respect. Researchers and research assistants fulfilled many important functions: rating reliability, and intervening to retrain tutors when necessary; managing all home-based procedures; collecting daily results and pre- and post-test data; evaluating progress through SRA materials and scheduling changes in the reading levels; and procuring and assigning the non-SRA reading materials. The framework in which the research was conducted provided contingencies to control the adequacy with which all these steps were carried out. For the program to have usefulness in the school system, it must be shown that agents in the schools can be trained to carry out the functions carried out here by the researchers, and that the school system can arrange contingencies to insure that the work is properly done.

This was the challenge that led to the project described in this paper. From Mr. Trovato's research we know that, when implemented properly, tutoring does produce a faster-than-normal rate of growth and, when a home-based reinforcement component is added, the growth rate is even faster. The key question for educators is: 'How can we organize our activities and provide mechanisms to ensure that the program is implemented in a way that produces optimum results?'

THIS PROJECT

During the school year 1978-79 we set out, with the help of four volunteer LRTs, to try to create the necessary mechanisms and procedures to replicate Trovato's results from tutoring, *without* relying on outside resources to provide the particular components which appear to make it successful.

In order to create these components within the system it seemed obvious that the LRTs needed to be trained to implement *all* parts of the program and that someone within the LRS who was intimately familiar with the tutoring program should monitor the LRTs and report to the Co-ordinator of Special Services. This was accomplished by a reporting system in which the tutor would report to the LRT, the LRT would report to the ALRT (or someone who is assuming system responsibility for tutoring) and this person, in turn, would report to the Co-ordinator of Special Services. The primary purpose of this pilot study was to create a suitable reporting system for ensuring adequate implementation of a tutoring program. Although the tutoring results are of some interest, the focus of the study was on devising workable procedures for developing and communicating the information necessary to assess the adequacy with which the tutoring program was being implemented.

The LRTs were given training by Mr. Trovato in procedures for training tutors, selecting tutees, placing tutees in the program, monitoring implementation and establishing home-based reinforcement. LRTs then set up a tutoring program in one of the schools they served with students in grades 2-4. The tutoring programs were not begun until December or January. Unfortunately, at this point in the project, Mr. Trovato, who was to serve as a consultant to the project during its initial year, accepted a position outside London. As a result, responsibility for monitoring the program and developing the reporting procedures was assumed by ERS, with the help of Mrs. June Pinkney.

Method

Because this was a development project, each component of the reporting process was both created and revised as part of the process. Initially, tutor and LRT reporting forms were created on the basis of experience from previous studies. The LRTs were provided with these forms and some instruction in their use, and were asked to try them out and suggest changes which they felt might make them more effective. Mrs. Pinkney made regular weekly visits to each of the tutoring sites to observe and assess the adequacy of the record-keeping system for recording and communicating the information necessary to locate and correct problems. She did not attempt to intervene in the tutoring process, but talked with the LRTs and exchanged information with them about the various components of the program and about the record-keeping. Several changes in procedure were made on the basis of these discussions. The revised reporting procedures are described below.

Reporting Procedures

The Tutor

The tutors keep records for every day they tutor on a *'Tutoring Record Sheet'* (Appendix A). On it they record, for both the main and supplementary reading material, the date, the specific material, the number of lines read correctly and incorrectly, the number of comprehension questions answered correctly, and a list of error words. In the last column they record the number of points the tutee earned that day.

This *Tutoring Record Sheet* provides the LRT with information about the number of missed sessions, the rate of student progress, problematic vocabulary, and the number of points earned by the tutee.

The LRT

At the end of each week the LRT completes a *'LRT Weekly Report Form'* (Appendix B) summarizing the activities for the week by indicating the number of tutees, the number of sessions, the number of short or missed

sessions, the results of monitoring particular students, any problems they have encountered, and a summary of each tutee's progress and of the parental contracts made regarding home-based reinforcement.

During each week the LRT monitors specific tutors and completes a *'Tutor Efficiency Checklist'* (Appendix C) for each of them. This checklist, which is keyed directly to specific components of the tutoring program, allows the LRT to identify readily any tutoring problems that exist.

The System Monitor

After a number of revisions, it was determined that these three forms provided sufficient information at tutor and LRT levels to permit decisions about the adequacy of the tutoring and to pin-point problems requiring attention.

The next step was to create a procedure for the System Monitor[2] to: (1) review the records, isolate the problems and take action to correct them, and (2) provide the descriptions and outcome data necessary for the continuing evaluation of the program by the Co-ordinator of Special Services. The System Monitor's tasks are described in detail in a paper called *'Tutoring Project - ALRTs Responsibilities'* (Appendix D).

The System Monitor reviews each entry made by the LRT on the *'Weekly Report Forms'* and, for each item, takes action to clarify or correct any problems. He then plots the data for each student on a *'Student Progress Chart'* (Appendix E) and reviews all of the students' progress over several weeks to determine how well the program is working. Once a month the System Monitor completes a *'Review Report'* (Appendix F) and sends it, with copies of the *'LRT Weekly Reports'* and *'Student Progress Charts'*, to the Co-ordinator of Special Services. At the conclusion of the program, the Co-ordinator of Special Services uses these data to prepare a final evaluation report on the tutoring program.

Results

Table 1 gives the mean pre- and post-tutoring scores on the Woodcock Word Identification Subtest and on the graded SRA Starter Stories used as an oral reading test for the 26 students involved in this project.

TABLE 1 Mean Woodcock and SRA Grade Equivalent Scores, Pre- and Post Tutoring

	Pre-Tutoring	Post-Tutoring	Anova Test Results
Woodcock	2.2	2.8	<01
SRA	1.5	1.8	<05

[2]Either an ALRT or someone with expertise in tutoring designated to assume responsibility for tutoring programs within the LRS.

It is obvious that the students, in the five months of involvement with this program, made some gains in reading skills. Because there is no control group, it is difficult to assess the educational impact of these gains. These students, who were selected because they were having difficulty with reading, had historically progressed at a rate which was less than one year for each year which they had spent in school. Seventeen of the 26 students involved in the project were performing at least 3 months behind the grade level which their age and grade placement might predict, as indicated by the Woodcock test. As a group, their pre-program rate had been approximately 8½ months in a school year. During their five months in this program, 16 of the 26 students made at least five months growth. This suggests that their rate of growth is faster than it had been before their placement in this program.

The fact that 9 of the students placed in the program were already within 3 months of their grade placement raises questions about the selection of students for the program.

Discussion

Although the tests used in this study are not directly comparable to those used by Mr. Trovato, it appears that the students have not gained as much as might have been expected from his results during the previous year. This can be explained, in part, by the fact that, since this was a development year, a number of changes were made during the implementation process.

A review of the records kept in this study indicated that some of the implementation problems that had arisen in earlier studies were still occurring. This reinforces our beliefs that: (1) a reporting procedure like that outlined is necessary for successful implementation of tutoring programs, and (2) that one person, who is an expert in tutoring, needs to be available to review the records, monitor tutor performance and take quick action to correct problems as they arise. Without constant attention the gains which are possible through tutoring can be lost through seemingly minor deviations from the program.

One fact which became apparent during this project is that cross-age tutoring should not be regarded as a time-saving program for LRTs, but as a more cost-effective one. It requires at least as much time as providing direct service to a group of children and some additional time to keep records and monitor the program. The LRT cannot train the tutors and leave them to tutor on their own. The LRT needs to be present to provide direction and support to the tutors as they tutor their tutees. The advantage which tutoring offers is consistent one-to-one instruction to a number of students, structured so that each student is placed at his own level and moves according to his success. If an LRT wants to begin a tutoring program, she must accept the significant commitment of time that is required to make it a success.

With the recording procedures now developed, this study should be repeated with an expert in tutoring from the LRS available to provide regular monitoring and several volunteer LRTs who are prepared to devote the time and detailed monitoring necessary for successful implementation.

REFERENCES

Stennett, R. G. & Isaacs, L. M. *Controlled pilot investigation of the relative effectiveness of a cross-age tutoring program in reading.* Board of Education for the City of London, Ontario, 1976, Research Report 76-04.

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Trovato, J. *Peer tutoring with or without home-based reinforcement.* Unpublished Master's Thesis, University of Western Ontario, London, Ontario, 1978.

APPENDIX A

TUTORING RECORD SHEET

STUDENT'S NAME _____ TUTOR'S NAME _____

SCHOOL _____

	MAIN READING MATERIAL (SRA)						SUPPLEMENTARY READING					
Date	Story Colour and Number	Total Lines Read	Lines Correct (Blue Chips)	Lines Incorrect	Comprehension Questions Correct (Orange Chips)	Word Error List	Book Title and Page Number	Total Lines Read	Lines Correct (Blue Chips)	Lines Incorrect	Word Error List	Transfer points

APPENDIX B

TUTORING

LRT WEEKLY REPORT FORM

This form should be submitted to your ALRT for review at the end of each week.

Date _____ Teacher _____ School _____

Number of students being tutored _____

Circle the days this week when tutoring sessions were held M T W T F

Were any tutoring sessions shortened this week? ☐ yes (explain) _____

☐ no

Reasons for missed sessions _____

If missed sessions are a problem, outline your plan to resolve this. _____

_____

Number of tutor efficiency checklists completed (include forms with this report) _____

Action taken (if needed) to improve poor tutor performance:

Problems with school personnel or with materials:

Check Student Record Sheets. For each student, report:

Student	Sessions done	Color at beginning of week	Color at end of week	% of SRA lines read correctly* M	T	W	T	F	Points balance

* For % SRA lines read correctly, circle any entry for which % comprehension question correct is less than 80.

Put an asterisk beside the names of the students whose families were contacted this week for review of the home-based program and for these students, enter the current points balance in the appropriate column.

Problems and actions taken (include name of student for each case mentioned):

APPENDIX C

TUTOR EFFICIENCY CHECKLIST

Tutor's Name _____

Date _____

Instructions: Mark "+" for correct performance "-" for incorrect performance

Recording

1. tutor indicates correctly the daily reading material . . . . . _____
2. records date, color and number . . . . . _____

1st Reading

3. has child read title and . . . . . _____
4. story . . . . . _____
5. follow in and marks extra copy . . . . . _____
6. gives blue chip for each line read correctly . . . . . _____
7. often praises for correctly read lines . . . . . _____
8. recognizes errors and marks X over word (if a vocab. error) . _____
9. and X at end of line . . . . . _____
10. says "go on if tutee delays more than 5 sec. or wants an explanation . . _____

Re-reading

11. asks tutee to reread lines with an X . . . . . _____
12. places circle around the X when rereading is correct . . . . . _____
13. gives praise for correct re-reading . . . . . _____
14. gives a blue chip for correct re-reading . . . . . _____
15. places another X at end of line if an error occurs on 2nd reading . . . . . _____
16. helps tutee by correcting error . . . . . _____
17. has tutee repeat it correctly . . . . . _____
18. prints vocab. errors on record sheet . . . . . _____

Comprehension

19. folds story out of sight and . . . . . _____
20. asks tutee to write (name,) date, story color and number . . _____
21. gives clear instructions and comprehension questions asking tutee to read to self . . . . . _____
22. records data (lines read, etc.) on record form . . . . . _____
23. uses answer key card . . . . . _____
24. gives orange chip for correct answer . . . . . _____
25. praises tutee for correct answer . . . . . _____
26. indicates wrong answers by an X . . . . . _____
27. tells tutee correct answer . . . . . _____
28. records number of orange chips on record sheet . . . . . _____

Flashcard Drill

29. prints clearly each error-word on a card . . . . . _____
30. shows card, asks tutee to say it . . . . . _____
31. if incorrect, tutor says word and has tutee repeat it . . . _____
32. puts card at bottom of pile . . . . . _____
33. if correct, tutor asks tutee to spell word, with card face down _____
34. if correct, puts card aside . . . . . _____
35. puts check beside word on record sheet . . . . . _____
36. if incorrect, has tutee spell, looking at word . . . . . _____
37. put card at bottom . . . . . _____
38. continues till cards done correctly . . . . . _____

Finishing Up

39. totals points (blue = 1, orange = 5) and records . . . _____
40. fills out a points transfer sheet for tutee . . . . . _____
41. interacts pleasantly with tutee . . . . . _____
42. materials put away . . . . . _____

APPENDIX D

TUTORING PROJECT

ALRTs RESPONSIBILITIES

The ALRT has an intermediate role in this project. He or she is responsible for *quality control* and for making a regular report about the program to the Co-ordinator of Special Services.

In order to do this the ALRT needs to complete the following tasks:

(1) review the *Weekly Report Forms* from the LRTs in the area and respond to any problems.

(2) plot the data for each student on a *Student Progress Chart*

(3) complete an *ALRT Review Report* each month

(4) send the *ALRT Review Report* along with the *LRT Weekly Report Forms* and a copy of the *Student's Progress Charts* to the Co-ordinator of Special Services once a month.

The rest of this document describes, in detail, the steps which the ALRT should take to do each of these.

Review of LRT Weekly Reports

When you receive the *Weekly Report Form* from your LRT(s) review it following the procedures outlined below.

1. Are there any more or any fewer students being tutored than indicated on previous LRT reports? If yes, discover where these children have come from or gone to.
2. Were there fewer sessions this week than there ought to have been? If yes, check to see why this happened and, if it is a problem, has it been remedied.
3. Was the average session length usually close to 30 minutes? If not, check to see if there is a problem and if it has been remedied.
4. Did a number of students miss sessions? If yes, review the proposal for fixing this and see if it is workable.
5. Record on the *Tutor Efficiency Checklist Chart* which tutors have been monitored by putting an "x" on the chart for the appropriate week if the tutor has been checked. Check the efficiency checklist forms to determine how well the tutors are doing. If there have been difficulties, put a circle around the "x" for that week on the *Tutor Efficiency Checklist Chart* and review the plan to improve their performance and see if it appears adequate.

6. If the LRT has indicated any problems with school personnel or materials try to attend to these as soon as possible.
7. Review the *Weekly Report Forms* for the past two weeks to insure that each set of parents has been contacted at least once during this time and check the points balance for these children to see if they are reasonable.
8. If the LRT has indicated any problems with the *home-based reinforcements*, review the actions taken to see if they are adequate.

Student Progress Charting

Using the summary of the *Student Record Sheet* on the *Weekly Report Form*, plot the data for each student on a *Student Progress Chart*. The following instructions describe the process for plotting and interpreting this information.

Plotting

1. Complete one SPC for each student being tutored
2. Start the form by entering the students' name in the space provided on the top of the form.
3. For each student, using the information provided on the LRT's *Weekly Report Form* ---
   (a) Locate the proper 'end of week' (Friday) date along the bottom of the form.
   (b) Determine the "color at the end of week' for the student*
   (c) Make a '•' mark on the chart where the 'end of week,' vertical line intersects the 'color at the end of week, horizontal line.
4. Repeat this procedure at the end of each week that the program is in operation.
5. At the end of each month, send photocopies of all *Students' Progress Charts* to the Co-ordinator of Special Services.

* For any student who has not yet developed sufficient skill to be in the lowest (red) level of the SRA material, use the horizontal line marked '1 . 2' .

Interpretation

When points have been plotted for the students for several weeks, the progress charts can be reviewed to determine how well the tutoring program is working.

In reviewing the charts, check for the following points:

(1) Are the students progressing through the SRA materials at a 'reasonable' rate?

In the original project, students tutored in the home-based component progressed at an average rate of about .35 grade equivalent points per month. That is, over the range of 1.4 to 3.0 (Red to Acqua) they covered roughly 4 colors in two months time.

(2) Do any students seem to be progressing at a rate that seems to be too quick?

Given the program rules, such a student would change colors every three days and, therefore, would cover 6 colors in a four week period. If this is the case the student may be working in material that is too easy and need to take the placement test again or the tutor may not be catching errors so the tutee is having false success.

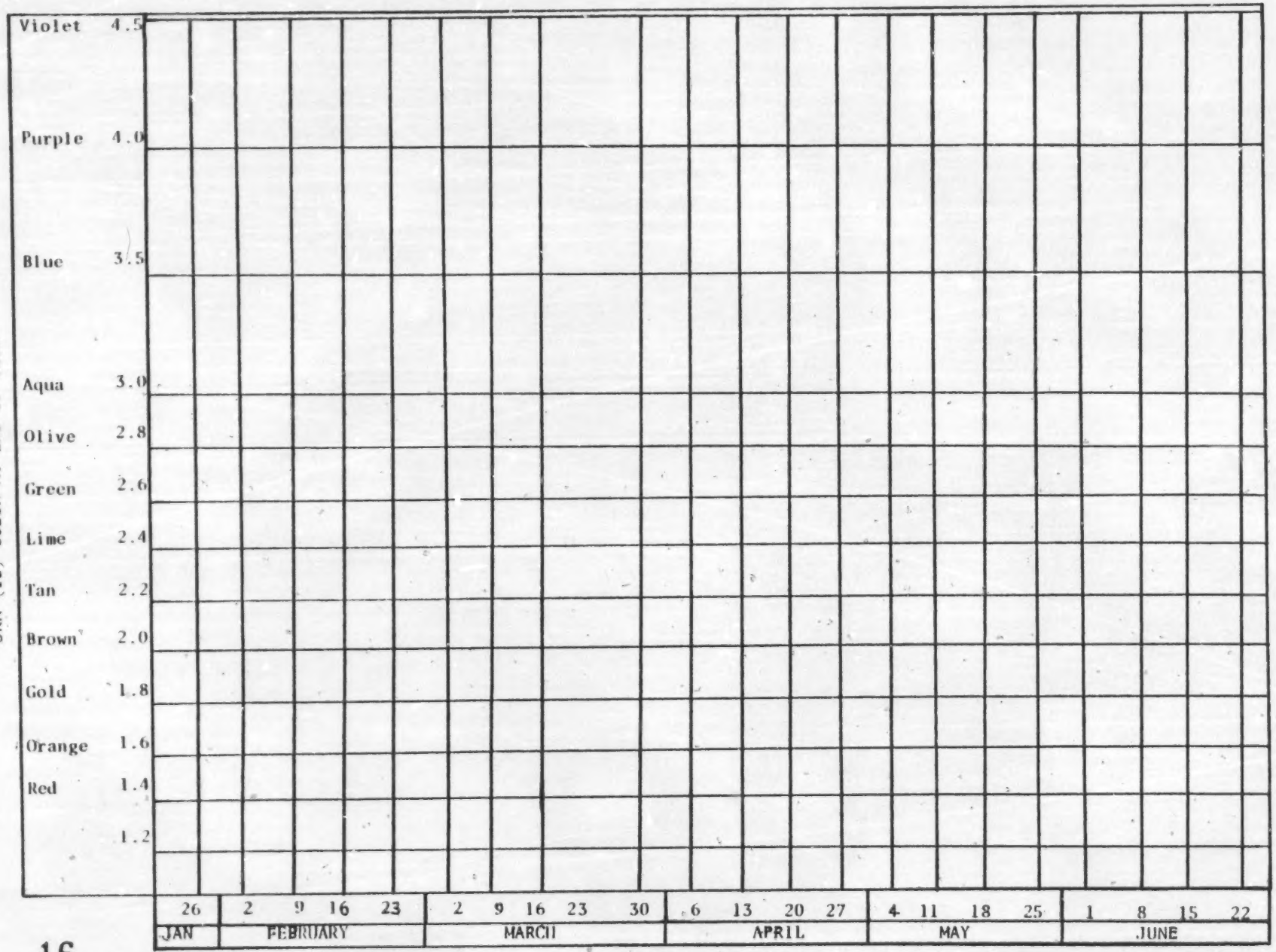
(3) Does any student seem to be making only very meagre progress? If students are to 'catch up' to their grade level by the end of the program, they must progress, week by week at a 'faster-than-normal' pace.

By putting an 'x' on the chart at the 'hoped'for' grade level over the June 22 date and joining this point to the first one plotted, you can produce a 'desired' progress rate line. The adequacy of the student's actual progress can then be assessed against that line.

ALRT Review Report

At the end of each month, complete the *ALRT Review Report* by checking off the boxes in the first part and circling yes or no in the second part. Send this form, along with the *Weekly Report Form* and a photocopy of the *Student Progress Charts* to the Co-ordinator of Special Services.

TUTORING PROGRAM: STUDENT PROGRESS CHART for _____



APPENDIX F

ALRT _____

LRTS in Program _____

_____

TUTORING

ALRT REVIEW REPORT

A. - Indicate dates activities completed

Month _____

Week

ACTIVITY	1	2	3	4
Weekly Record(s) received from LRT(s)				
Weekly Record(s) reviewed				
Students progress plotted				

B.

PROBLEMS (please circle)	1	2	3	4
# of sessions and/or length of sessions	yes no	yes no	yes no	yes no
tutor adequacy	yes no	yes no	yes no	yes no
home-based reinforcement program	yes no	yes no	yes no	yes no
student progress	yes no	yes no	yes no	yes no
other _____ _____	yes no	yes no	yes no	yes no

C. Comments: - _____

_____

_____